

SIMATIC S7-200 SMART, analog I/O SM AM06, 4 AI/2 AO, 0..10 V, 0..5 V, 0/4..20mA, +/-5 V, +/-2.5 V, 12 bit resolution or 4...20 mA, +/-10 V 11 bit resolution



General information

Product type designation	SM AM06, AI 4x12 bit, AQ 2x11 bit
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CiR – Configuration in RUN

Reparameterization possible in RUN	No
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Supply voltage

Rated value (DC)	
• 24 V DC	Yes; -15 / +20 %
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

Input current

Current consumption, typ.	60 mA
from backplane bus 5 V DC, typ.	80 mA

Power loss

Power loss, typ.	2 W
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Analog inputs

Number of analog inputs	4
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Input ranges

• Voltage	Yes; $\pm 10\text{V}$, $\pm 5\text{V}$, $\pm 2.5\text{V}$
• Current	Yes; 0 to 20 mA
• Thermocouple	No
• Resistance thermometer	No
• Resistance	No
Input ranges (rated values), voltages	
• -10 V to +10 V	Yes
— Input resistance (-10 V to +10 V)	9 M Ω
• -2.5 V to +2.5 V	Yes
— Input resistance (-2.5 V to +2.5 V)	9 M Ω
• -5 V to +5 V	Yes
— Input resistance (-5 V to +5 V)	9 M Ω
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	250 Ω
Analog outputs	
Number of analog outputs	2; Current or voltage
Output ranges, voltage	
• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	1 k Ω
• with current outputs, max.	500 Ω
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
• Resolution (incl. overrange)	voltage mode: 11 bit + sign bit, current mode: 11 bit
• Resolution with overrange (bit including sign), max.	12 bit
• Interference voltage suppression for interference frequency f1 in Hz	10 / 50 / 60 / 400 Hz
Smoothing of measured values	
• parameterizable	Yes; In 4 stages: 1x, 4x, 16x, 32x cycle time
• Step: None	Yes; 1x
• Step: low	Yes; 4x
• Step: Medium	Yes; 16x
• Step: High	Yes; 32x
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution (incl. overrange)	voltage mode: 11 bit + sign bit, current mode: 11 bit

- Resolution in isochronous mode (including overrange)

voltage mode: 10 bit + sign bit, current mode: 10 bit

Interrupts/diagnostics/status information

Diagnostics function Yes

Diagnostics messages

- Monitoring the supply voltage Yes
- Wire-break Yes
- Short-circuit Yes

Diagnostics indication LED

- for status of the inputs Yes
- for status of the outputs Yes

Degree and class of protection

Degree of protection acc. to EN 60529

- IP20 Yes

Standards, approvals, certificates

CE mark Yes

Dimensions

Width 45 mm

Height 100 mm

Depth 81 mm

Weights

Weight, approx. 173.4 g

last modified: 04/09/2020